173. The isolated protein of claim 172, wherein said a heterologous polypeptide comprises the Fc portion of an antibody molecule.

B4 Cont.

174. A composition comprising the isolated protein of claim 170 and a pharmaceutically acceptable carrier.--

Remarks

After entry of the foregoing amendments, claims 27-174 will be pending in the captioned application with claims 27, 33, 39, 45, 51, 57, 63, 69, 74, 81, 87, 93, 105, 111, 121, 127, 135, 141, 150, 155, 163 and 170 being the independent claims.

I. The Priority Applications

The captioned application claims priority benefit of U.S. Application No. 08/741,095, filed October 30, 1996; U.S. Application Nos. 08/464,595, 08/462,962, and 08/462,315, filed June 5, 1995; and PCT/US95/05058 (the '058 application), filed April 27, 1995. Each of these applications have been incorporated by reference into the captioned application. (Specification, page 1, lines 3-7.)

II. The Amendments and the New Claims are Supported by the Specification

The specification of the captioned application has been amended to introduce subject matter from the '058 priority application. In particular, the Sequence Listing has been amended by adding SEQ ID NOs:25 and 26. SEQ ID NOs:25 and 26 are identical to SEQ ID NOs:1 and

2 of the '058 application, which was incorporated by reference into the present application. (Specification, page 1, lines 3-9.) Further support for added SEQ ID NOs:25 and 26 appears in the present specification at page 9, lines 20-28, where it is stated that the TR2 receptors of the invention include allelic variants. Allelic variants of TR2 are then described which contain either an adenine or a guanine at nucleotide position 314 of SEQ ID NO:1, resulting in the codon at positions 313-315 of SEQ ID NO:1 encoding either a lysine or arginine residue. The nucleotide sequence shown in SEQ ID NO:25 contains a guanine residue at position 314 whereas SEQ ID NO:1 of the captioned application contains an adenine residue at this location. Further, SEQ ID NO:26 contains an arginine at the -22 position whereas SEQ ID NO:2 of the captioned application contains a lysine residue at the analogous location (-20 position).

In accordance with 37 C.F.R. § 1.821(f), the paper copy of the Sequence Listing and the computer readable copy of the Sequence Listing submitted herewith in the above application are the same.

In accordance with 37 C.F.R. § 1.821(g), this submission includes no new matter.

Example 7 has also been added to the specification. This example is essentially the same as Example 4 of the '058 application which, as noted above, has been incorporated by reference into the captioned application. Thus, the addition of Example 7 into the specification does not introduce new matter.

The amendment of the "Cross-Reference to Related Applications" section of the captioned application is supported by page 1, lines 3-9 of the originally filed specification.

The specification has also been amended to correct an error in the form of the biological materials deposited as ATCC Deposit Nos. 75059, 75058, and 75057. In particular, page 4, lines 26-27, of the specification states that the cDNA clones encoding the TR2 (ATCC Deposit No. 75059), TR2-SV1 (ATCC Deposit No. 75058), and TR2-SV2 (ATCC Deposit No. 75057) polypeptides were deposited in bacterial hosts. However, as evidenced by the attached ATCC deposit receipts, these cDNAs were deposited as plasmid DNAs.

The specification has been amended to include the new address of the American Type Culture Collection (ATCC). The ATCC has recently moved from 12301 Park Lawn Drive, Rockville, MD 20852 to 10801 University Blvd., Manassas, VA 20110-2209. Applicants were advised on May 19, 1998, in a notification published in the Official Gazette, to amend pending applications to refer to the current address of the ATCC. (1210 OFF. GAZ. PAT. OFFICE 74 (May 19, 1998).) The amendments to page 9, lines 3-4; page 42, line 15; and page 75, line 13 are required to incorporate the new address of the ATCC into the specification. No new matter has been added by these amendments.

Page 21, line 18, of the specification has been amended to correct an obvious typographical error in the amount of ingredients listed for 5x SSC (sodium chloride/sodium citrate). An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of the error in the specification, but also the appropriate correction. (M.P.E.P. § 2163.07.) Here, the recognition of the typographical error, along with the correction of the error, in the amount of the ingredients listed for 5x SSC, is obvious to one skilled in the art, and, therefore, the correction does not constitute new matter.

5x SSC is a well known solution used in hybridization solutions. (*See, e.g.*, Exhibit A, CURRENT PROTOCOLS IN MOLECULAR BIOLOGY, John Wiley and Sons, N.Y., Supplement 35, page 2.10.7 (1996).) SSC is normally made as a 20x stock solution, and then diluted accordingly for a particular use. Exhibit A shows that a 20x SSC stock solution contains 3M NaCl and 0.3M trisodium citrate. (Exhibit B, CURRENT PROTOCOLS, page A.2.5.) To make a 5x SSC solution, the 20x SSC solution must be diluted by one-fourth. Therefore, a 5x SSC solution contains 750mM NaCl (3M ÷ 4 = 750mM) and 75mM trisodium citrate (0.3M ÷ 4 = 75mM).

One skilled in the art would have immediately recognized that the amount of ingredients listed in the specification for a 5x SSC solution was incorrect. Rather than describing a 5x SSC solution, made up of 750mM NaCl and 75mM trisodium citrate, the specification inaccurately

listed the ingredients for a 1x SSC solution. Further, the skilled artisan, in recognizing the typographical error, could easily have adjusted the amount of ingredients described in the specification to properly make a 5x SSC solution. Therefore, the correction of this typographical error does not introduce new matter.

Page 21, line 19, of the specification has also been amended to correct an obvious typographical error in the amount of denatured, sheared salmon sperm DNA in the hybridization solution used in an example of "stringent hybridization conditions". The originally filed specification refers to the inclusion of 20 g/ml denatured, sheared salmon sperm DNA but should recite 20 μg/ml.

The inclusion of agents such as salmon sperm DNA as blocking agents is well known in the art. (*See, e.g.*, Exhibit A, CURRENT PROTOCOLS, page 2.10.7.) One skilled in the art would know that salmon sperm DNA is present in hybridization solutions in μg/ml quantities and thus would immediately recognize the above-described typographical error in the specification. *See id.* Further, the skilled artisan, in recognizing the typographical error, could easily have adjusted the amount of ingredients described in the specification to properly included 20 μg/ml denatured, sheared salmon sperm DNA in the hybridization solution. Therefore, the correction of this typographical error does not introduce new matter.

The specification has been amended to include a section heading and to update the priority application data.

Support for claims 27-174 can be found throughout the specification and original claims. In particular, support for claims 27-28, 81-82 and 87-88 can be found, *inter alia*, in the specification in SEQ ID NO:26; at page 6, lines 11-21; at page 9, lines 20-28; at page 34, lines 7-20; and at page 36, lines 16-22. Support for claims 33-34, 45-46 and 57-58 can be found, *inter alia*, in the specification at page 15, line 8, to page 16, line 2. Support for claims 39-40, 51-52 and 63-64 can be found, *inter alia*, in the specification at page 18, lines 24-27, and at page 34, lines 7-20. Support for claims 69 and 74-76 can be found, *inter alia*, in the specification at page

20, line 20, to page 21, line 11; at page 30, lines 15-19; and at page 35, line 24, to page 36, line 4. Support for claims 93-100, 105-106, 111-116, 121-122, 127-130, and 135-136 can be found, *inter alia*, in the specification in SEQ ID NO:2; at page 6, lines 11-21; at page 15, line 8, to page 16, line 2; and at page 34, line 7, to page 35, line 20. Support for claims 141-145, 155-158, and 163-165 can be found, *inter alia*, in the specification at page 6, line 25, to page 7, line 3; at page 7, lines 12-18; and at page 7, line 25, to page 8, line 2. Support for claim 150 can be found, *inter alia*, in the specification at page 36, lines 14-22. Support for claim 170 can be found, *inter alia*, in the specification in SEQ ID NO:25 and in Example 7 on page 84. Support for claims 29-32, 35-38, 41-44, 47-50, 53-56, 59-62, 65-68, 70-73, 77-80, 83-86, 89-92, 101-104, 107-110, 117-120, 123-126, 131-134, 137-140, 146-149, 151-154, 159-162, 166-169 and 171-174 can be found, *inter alia*, in the specification at page 27, line 16, to page 30, line 13, and at page 53, line 1, to page 54, line 11.

Portions of the TR2 protein comprising amino acids 1-245 and 1-162 of SEQ ID NO:26 are supported, *inter alia*, by SEQ ID NO:26 of the captioned application. More specifically, as evidence by the negative numbers assigned to the amino acid residues at the N-terminus of the TR2 amino acid sequence shown in SEQ ID NO:26, the leader sequence for the TR2 protein was predicted in the '058 application to consist of 38 amino acids. Thus, one skilled in the art would recognize that the mature TR2 protein would be made up of amino acid 1-245 in SEQ ID NO:26. Further, one skilled in the art would recognize that the predicted extracellular domain of the TR2 protein would be made up of amino acid 1-162 in SEQ ID NO:26. This second point is so because the predicted C terminus of the extracellular domain has remained consistent in all of the priority applications and in the captioned application. As a result, amino acids 1-162 of SEQ ID NO:26 correspond to amino acids 3-164 in SEQ ID NO:2.

In view of the above, claims 27 and 81 are supported by the captioned application.

Conclusion

It is respectfully believed that this application is now in condition for substantive examination. Early notice to this effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Respectfully submitted,

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